

Please review all of the following information, including the gear allocations and field team members, to ensure accuracy. This plan is an agreement between VPR and your group, documenting the logistics support you will receive.

• Project Information •

Lead Principal Investigator	Dr. Cort Anastasio
Institute	University of California, Davis, Department of Land, Air, and Water Resources
Project Title / Grant #	Photochemical formation of oxidants and destruction of organic compounds in the snowpack at Summit, Greenland (0455055)
NSF Program and Manager	NSF/OPP ANS, Dr. Jane Dionne
VPR Project Manager	Robin Abbott

• Logistics Summary •

<p>In this study of photochemical reactions of organic compounds in snowpack, a team of three will travel to Summit, Greenland in the summer of 2005. On station, they will measure snowpack concentrations of oxidants and measure the lifetimes and decay of a suite of model organic compounds on Summit snow. Field experiments will be followed up with further analysis of the samples at the researcher's home institute.</p> <p>VPR support will consist of ANG travel/cargo coordination and provision of access to the Summit infrastructure.</p>

For the complete VPR online project record for this grant, including science objectives, go to: http://www.vecopolar.com/arlss_reports/arlss_projectsdetail.asp?cbPropNum=0455055

• Outstanding Issues •

Issue	Responsibility	Date Completed
Review support plan for accuracy and distribute to all field team members	PI	
Obtain all necessary permits for fieldwork	PI	
Visit all hyperlinks and review all documents referred to in the support plan	Field Team Members	
Contact the GEOSummit Science Coordination Office (SCO) mailto:sco@geosummit.org regarding your project's plans for the season	PI	March, 2005
Medical Clearance completed 8-6 weeks before desired deployment date	Ram	
Please note this important information for your field team: Bring 2 different forms of picture ID. Passports are now mandatory for entry into Greenland. Be sure to pack them!	Field Team Members	
Complete Critical Success Factors	PI	March, 2005

• Allocations & Services •

Allocations from VECO Inventory

Quant/Unit	Item
1 ea	Mobile Weatherport, 12' x 8', with electric space heaters to run especially at night will be located east of the science trench in the line between the trench door and Swiss Tower, half way between the door and the seismometer.
~8 A	Power requirements for science instruments in the weatherport (power for heaters is not included in this number).
Qty	Plywood shelving (approx. 12-16 inches wide), hung on arches on one side of wxport (no shelves on other side).
1 ea	Weather station for weatherport (same as at satellite camp in last two years, with temperature, wind speed, and wind direction)
1 ea	Place to secure two He cylinders within the wxport
Qty	Making the wxport a home away from home (adding hangers for coats, gloves, etc.; putting in a garbage can, a broom and dustpan, etc.)
1 ea	Camp radio in mobile weatherport
1 ea	Snowmachine for setup and teardown only
1 ea	Nansen type sled for setup and teardown only
2 ea	Shovels
1 ea	8 x 8 Arctic Oven tent for sleeping (per person)
2 ea	Sleeping pads per person
Qty	Insulation boards per tent
2 ea	Wireless PC access cards
1 ea	Plywood 4' x 8' piece on anchored drums, in a location near lab wxport
4 ea	Empty 55 gallon drums to make outdoor storage at weatherport
Qty	Bamboo with flags to mark line to wxport from science trench and to mark experiment areas
250 ft	Rope to make safety line to wxport from science trench
1 ea	UPS for the weatherport
1 ea	Milli-Q Plus system (with carboy for feedwater and carboy for wastewater) located either in Greenhouse or weatherport. The researchers will take the responsibility of transferring the instrument to the necessary location.
1 ea	Balance in Greenhouse or weatherport; resolution 0.1g; capacity of 1500g
2 ea	Tables (6' long x ~3' wide)
3 ea	Chairs for weatherport
2 ea	Banana sleds

Items to be Purchased

Quant/Unit	Item
2 ea	Helium cylinder, 99.995% (or 99.997%) pure, size 200, at least 200 cu ft, 2100 PSI, CGA 580 fitting.
1 set	-20 C eutectics (Johnny Blue Ice) for ice core box team has the box).
2 ea	15 gal plastic waste containers for aqueous hazardous wastes. Containers need to have screw tops that seal well.

Other Services

Project Allocations	Comments
Wxport lab doors cleared of snow, building heated to ~ 60 F, BEFORE THE SCIENCE TEAM ARRIVES so they we can move in as soon as they arrive.	Science team will keep doors clear of snow by hand after setting up
Access to Greenhouse Lab with the hood to make	The Greenhouse will be unavailable from mid-

solutions	May to early June*. It is VPR's understanding that the team will work around the construction schedule for this requirement.
Access to "Clean" room in Greenhouse to wash glassware occasionally.	The Greenhouse will be unavailable from mid-May to early June*. It is VPR's understanding that the team will work around the construction schedule for this requirement.
Access to the Milli-Q system along with 3' of bench space to accommodate washbasins.	The Greenhouse will be unavailable from mid-May to early June*. Milli-Q system will reside in weatherport during the Greenhouse move.
Science Tech support from approx May 25 – Jun 13.	3-4 hrs one morning per week
A Wireless network connection will be available in your weatherport.	SRI will install access.
Handling and storage of keep frozen samples in Kangerlussuaq and Scotia, NY.	Between their arrival from Summit and departure to Scotia, your two shipments of frozen samples will reside in the local Kangerlussuaq freezer. In Scotia, the shipments will be stored in a freezer until the next workday, when they will be fedex'ed to your home institute.

* For a detailed description of the planned building uplift project, go to <http://www.vecopolar.com> and navigate to Greenland > Science Project Plans.

• Location Information •

Please visit <http://www.vecopolar.com> and navigate to the Greenland menu for en route and location-specific Greenland information. Prior to deployment, your entire field team should be familiar with the content of the *Greenland Guide* and, if traveling to Summit, with the guidelines provided in the *Summit Users' Guide*. Both are available electronically via our web site's Greenland menu.

• Cargo and Customs •

All cargo required for your project should arrive in Scotia, NY no later than 2 weeks prior to the desired northbound Air National Guard (ANG) flight, must be entered into our online Cargo Tracking System, and must be properly registered with customs.

- For the most current ANG flight schedule got to <http://www.vecopolar.com> and navigate to Greenland > Calendars/Schedules.
- If you are a new user requiring access to the Cargo Tracking System, contact Robin Abbott (robin@polarfield.com).
- For Customs requirements refer to the *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland.

Cargo List

Items	Weight/Cube
Wooden Crate 1 (HPLC System) – DO NOT FREEZE	120 lbs / 11 ft ³
Wooden Crate 2 (Computer & Balance) – DO NOT FREEZE	110 lbs / 11 ft ³
Purple Rubbermaid 1 (Anastasio Clothing)	50 lbs / 10 ft ³
Purple Rubbermaid 2 (Galbavy Clothing)	50 lbs / 10 ft ³
Coleman Cooler – KEEP FROZEN ON RETROGRADE TRIP	30 lbs / 4 ft ³
Ice Core Box – KEEP FROZEN ON RETROGRADE TRIP	40 lbs / 10ft ³
Big Action Packer 1	40 lbs / 7 ft ³
Big Action Packer 2	40 lbs / 7 ft ³

Big Action Packer 3	40 lbs / 7 ft ³
Sm Action Packer 1	30 lbs / 5 ft ³
Sm Action Packer 2	30 lbs / 5 ft ³
Cardboard Flat Box	10 lbs / 2 ft ³
Blue Roughneck Rubbermaid Tub	30 lbs / 3 ft ³
Anastasio Carry On Bag 1	40 lbs / 3 ft ³
Anastasio Carry On Bag 2	40 lbs / 2 ft ³
Galbavy Carry On Bag 1	40 lbs / 3 ft ³
Galbavy Carry On Bag 2	40 lbs / 2 ft ³
Ram Carry On Bag 1	40 lbs / 3 ft ³
Ram Carry On Bag 2	40 lbs / 2 ft ³
Chemicals (Acetonitrile)	40 lbs / 2 ft ³
Chemicals (Perchloric Acid) – DO NOT FREEZE	5 lbs / 1 ft ³
Chemicals (Ethyl Alcohol)	12 lbs / 1 ft ³
ALL ITEMS WILL BE RETURNING TO SCOTIA AT END OF THE SEASON EXCEPT FOR THE FINAL THREE	

• Support Schedule •

Date	Location	Activity
16 May	NY > Kanger	Flight from NY to Kangerlussuaq for Anastasio and Galbavy
17 May	Kanger > Summit	Flight to Summit for Anastasio and Galbavy
25 May	Summit > Kanger	Depart Summit (Anastasio)
27 May	Kanger > NY	Depart Kangerlussuaq (Anastasio)
12 Jun	NY > Kanger	Flight from NY to Kangerlussuaq for Ram
13 Jun	Kanger > Summit	Flight to Summit for Ram
10 Aug	Summit > Kanger	Depart Summit (Galbavy and Ram)
13 Aug	Kanger > NY	Depart Greenland (Galbavy and Ram)

• Field Team Information •

Name	Location	Date In	Date Out	Email
Anastasio, Cort	Kangerlussuaq	16 May	27 May	canastasio@ucdavis.edu
Anastasio, Cort	Summit	17 May	25 May	
Galbavy, Eddie	Kangerlussuaq	16 May	13 Aug	esgalbavy@ucdavis.edu
Galbavy, Eddie	Summit	17 May	10 Aug	
Ram, Keren	Kangerlussuaq	12 June	13 Aug	kram@unr.nevada.edu
Ram, Keren	Summit	13 June	10 Aug	

• Project Contact Information •

Research Team

Role	Name	Email	Phone / Fax
Principal Investigator	Dr. Cort Anastasio	canastasio@ucdavis.edu	530-754-6095/530-752-1552

VPR Team Members

Contact for	Name	Email	Primary Phone(s)
Greenland operations	Robin Abbott	robin@polarfield.com	Denver: 303.748.8507 Greenland: 011.299.524218
Greenland operations	Mark Begnaud	mark@polarfield.com	Denver: 720.320.6160 Greenland: 011.299.524281
Medical	Jason Buenning	jason@polarfield.com	Denver: 303.638.6669
Denver operations	Jill Ferris	jill@polarfield.com	Denver: 720.320.6155

Scotia Operations & Customs	Earl Vaughn	earl.vaughn@nyscot.af.mil yprscotia@direcway.com	Scotia: 518.331.3103
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VPR Offices

Denver	Kangerlussuaq	Scotia	Summit
VECO Polar Resources 8392 S. Continental Divide Rd. #104 Littleton, CO 80127-4268 Tel: 303.984.1450/1439 Fax: 303.984.1445	VECO Polar Resources Attn: Name of Employee/Researcher Postboks 1015 DK-3910 Kangerlussuaq, Greenland Tel: 011.299.841598 Fax: 011.299.841599	Earl Vaughn C/O 109 th Aerial Port Bldg. 20 Stratton Air Base Scotia, NY 12302-9752 Tel: 518.331.3103 Fax: 518.884.2904	VECO Polar Resources Attn: Name of Employee/Researcher Postboks 1015 DK-3910 Tel: 321.953.9650 Fax: 321.953.9651

Other

Organization	Internet	Phone
Summit Science Coordination Office	http://www.geosummit.org sco@geosummit.org	N/A

• Safety, Environment, Health, and Permitting •

Permits

Please refer to VPR's *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland, for information about permits required to conduct fieldwork in Greenland.

Medical Clearance

Arctic Program participants traveling into the Greenland field are generally required to pass a National Science Foundation (NSF) mandated physical exam. All field team members should plan to complete their medical clearance process 8-6 weeks prior to their travel to Greenland. For more information refer to VPR's *Greenland Guide*, available at <http://www.vecopolar.com> under Greenland.

• Critical Success Factors •

Please list the factors that are most important for the success of your science. We track these factors in order to measure the success of VPR's support. Examples might be the availability of the helicopter or camp gear.

Factors
1. It will be critical that the lab weatherport is ready for occupancy and the cargo pallet outside the wxport is set up before our arrival in mid May.
2. Efforts to keep camp activities (emissions from vehicles and any other mobile pollution sources like herman nelson, small generators, etc.) from impacting activities near the lab weatherport will be appreciated. We expect that the most likely "controllable" source of pollution will arise from grooming the skiway, and are optimistic that camp staff will be able to plan around marginal wind conditions.
3. It is essential that northbound science cargo either arrives at Summit with us, or be waiting for us at Summit. Note that some of this cargo is DO NOT FREEZE and will need to be expedited to warm storage (preferably the lab weatherport) as soon as it arrives at Kanger and Summit. If our cargo is not already in the Summit lab weatherport when we arrive then we will move it there on the day of our arrival.
4. Retrograde cargo: frozen samples will need to be kept frozen in Scotia and then sent overnight to Davis, CA as soon as possible. This will occur twice: upon Anastasio's return to Scotia on May 27 th and upon Galbavy's return to Scotia on Aug. 13.
5. Other samples (not temperature sensitive) and all equipment need to be forwarded from Scotia to Davis, CA as soon as reasonable after the mid August flight period. We do not want material spending the winter in Kanger or months in Scotia.

- Government Performance and Reporting Act of 1993 (GPRA) •

NSF/OPP requires your help in complying with the Government Performance and Reporting Act of 1993 (GPRA). One measure of VPR's performance is a "facility-performance metric" which counts the number of productive days your project has in the field while relying on VPR facilities or support. Please keep track of any "lost days" and report these to us at the end of the season.